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REPORT

TO

SIR JOHN SINCLAIR
of Ulbſter, Bart.

CHAIRMAN OF THE SOCIETY FOR THE IMPROVEMENT OF BRITISH WOOL,

OF THE

STATE OF SHEEP FARMING

ALONG THE EASTERN COAST OF SCOTLAND, AND THE INTERIOR PARTS OF THE HIGHLANDS,

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BY ANDREW KER.

With an APPENDIX, containing an Abſtract of a Paper reſpecting SHETLAND SHEEP, by John Tulloch, a Native of Shetland.

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REPORT, &c.

HAVING received inſtructions from Sir John Sinclair of Ulbſter, Baronet, Chairman of the Society for the Improvement of Britiſh Wool, reſpecting the chief points of inquiry on which the Society deſired to be informed; I left Edinburgh on Monday the 4th of April, and croſſing from Leith to Kinghorn, proceeded through Kirkcaldy to Falkland; intending to begin my ſurvey by viewing the ſheep in the neighbourhood of that place, there being none kept between Kinghorn and Falkland. I obſerved that the land on both ſides of the road between Kinghorn and Kirkcaldy ſeemed of an exceeding good quality for tillage, being neither of too ſtiff nor too light a ſoil: It is kept, however, in miſerably bad order, and is ſcarcely at all improved, notwithſtanding that plenty of coal and limeſtone are every where within reach. I was informed that the ground is never fallowed; and, though remarkably well ſuited for turnips, that valuable crop is never attempted to be raiſed. From Kirkcaldy to Falkland the ſoil is of an inferior quality, but ſeems capable of great improvement, if proper means were uſed for that purpoſe.

The firſt ſheep I met with were on the Lomond hills. Theſe hills are much expoſed to the north and weſt winds; on the higher parts, the ſoil conſiſts of a dry bare gravel, bearing apparently a fine but ſhort natural graſs; on the weſt and ſouth-weſt ſides, the graſs is coarſer, and is mixed with bent graſs, and with a bad kind of ſtunted heath. The ſoil at the bottom of the hills, on the north ſide, is of a light ſandy nature, producing a conſiderable quantity of whins.

The ſheep kept on theſe hills ſeem to be a mixture between the black faced and white faced kinds, having moſtly imperfectly white faces, and are, what we would reckon in the ſouth, a bad kind of ſheep. I took ſome ſamples of their wool, which is lodged with the Secretary, for the inſpection of the Society. The farmers in this part can give very little account of the breed of their ſheep, as they, for the moſt part, buy them when hogs or dinmonds, in the north of Fife. For ſome years paſt, they have paid from eight to nine ſhillings a head for them; and, after keeping them till four or five years old, they ſell them, in the month of July, for thirteen ſhillings to ſuch of their neighbours as have incloſed or improved land fit for feeding. The farmers adjoining to theſe hills, who have right of paſturage or common, pay half a crown each yearly, for this privilege, to Mr Skene of Pitfour.

As very few ſheep in this part of the country are laid or ſmeared, the wool is moſtly ſold white; and is, I am informed, remarkably clean and white when ſhorn, owing to the want of moſs, or other dirty ground, where the ſheep uſually ſoil their fleeces by rubbing. The greateſt part of this wool is ſold to the people in the neighbourhood for making blankets, and other country fabrics; the price about eighteen ſhillings a ſtone, conſiſting of twenty-four pounds Engliſh avoirdupois.

A very ſmall number only of the hogs are ſmeared, and theſe are kept along with the reſt of the ſheep. The ſalve uſed here is compoſed of four pounds of butter to each pint of tar; and this quantity uſually ſerves about twenty ſheep. The ſalved wool ſells for about fifteen ſhillings a ſtone.

In this part of the country they only keep a very ſmall number of ewes, which they buy great with lamb in the ſpring. They are obliged to houſe them every night during lambing time, for fear of the ravages of foxes, which are ſaid to be very numerous.

Theſe hills, ſo far as I could learn, keep about two thouſand head of ſheep during ſummer; but, in the winter, they are removed to the lower grounds, where they are kept till the month of April, and then ſent back to the hills. Inſtead of hay, during winter, they truſt to whins, of which there are great quantities.

From clipping time, in the end of May, or beginning of June, till April, the ſheep are folded every night, which I think a very bad practice, being both prejudicial to the ſheep, by harraſſing them, and injurious to the graſs, which is trodden down by the throng. Indeed, there is but little graſs to ſpare, for, as is the caſe in all commons, the ſtock is generally more numerous than the paſture is able to maintain. I was told, that, ſome years ago, a great many more ſheep were kept on theſe hills; theſe muſt have been of a ſmaller ſize, for, even at preſent, there is hardly any meat to ſpare.

I was informed that the wedders will fatten to about ten pound weight per quarter; which I can hardly credit, as their fore-quarters ſeem very light and thin.

Almoſt immediately between the eaſt and weſt Lomond hills, but a little to the north, is the farm of Gilgour *, the ſoil

* It is ſaid that Culgour ſignifies, in the Earſe language, 'the hill of goats.'

ſoil and quality of which is much the ſame with that of the Lomond hills already deſcribed; but with this additional advantage, that it contains a hill covered with tolerably good heath, which is of very great uſe during winter. The tenant keeps about five hundred young ſheep and wedders, which are exactly the ſame, in every reſpect, with thoſe already mentioned on the Lomonds, being bought at the ſame market, and both ſheep and wool being ſold in the ſame manner, and at the ſame price.

The tenant on this farm has bought a few ewes this year, and intends to try the breeding of ſheep himſelf. I recommended his procuring, for this purpoſe, a true bred ſouth-border ram; as, by means of this croſs, the progeny would become conſiderably heavier in the fore-quarter, which would give him an advance of price from the butcher for ſuch as he could fatten on his own farm, and likewiſe for thoſe which he ſold to his neighbours, in the lowlands, for fattening. By the ſame means, he would improve the quality of the wool on his ſtock, rendering it even at the top, heavier in the fleece, and of a finer ſtaple. I likewiſe adviſed him to burn the dry withered bent on the grounds early in the ſpring, as, in my opinion, this would cauſe the new growth to come forward much earlier than at preſent.

In this part of the country, both on this farm, and on the Lomonds, it takes about nine fleeces of the white or unſalved wool to make a ſtone, and about ten or eleven of the laid wool. The latter is all produced by the hogs.

To the weſt of the Lomonds, and cloſe to Lochleven, is a common paſture, called St Andrew's Hill, on which, between three and four hundred ſheep are kept, exactly of the ſame kind as thoſe already deſcribed.

The only diſorder to which the ſheep in theſe parts are ſubject

ſubject is called by the country people the *braxy*, which, ſo far as I could learn, is the ſame with the diſeaſe known under the name of *ſickneſs* in Teviotdale.

The hogs are principally ſubject to this diſeaſe. They are afflicted with it from the end of October to the end of December, or until a good deal of froſt or ſnow falls; after which time they are almoſt never troubled with it. They are generally ſeized very ſuddenly with a ſwelling of the whole body, and they die in a ſhort time, after which the body is very much diſcoloured. There has been no cure yet found for this diſeaſe; but, I ſhould think, if it were attended to when the diſeaſe firſt makes its appearance, by uſing a ſmall quantity of tar, in the ſame manner as is given to black cattle when ſwelled with turnip or clover, a good effect might be produced; at leaſt it is worth making a trial. It is generally thought that too much graſs brings it on. Were the farmers on the Lomond hills, and the adjoining farms, to breed their own ſtock, paying proper attention to croſs, even the preſent bad breed, with good Border rams, I am clearly of opinion, that, in a very few years, they might increaſe the weight of the ſheep, eſpecially in the fore quarters, which are at preſent very thin and light. Beſides which, the quality and weight of the fleeces would be conſiderably improved by the ſame means. But, as they have at preſent no breeding ſtock on their land, it might perhaps be more adviſable to procure at once a good breed both of ewes and rams from the ſouth.

The method of herding the ſheep in theſe parts is exceedingly improper, as they are conſtantly kept cloſe together in hirſels, by which means they are never permitted to ſettle at their food. Sheep naturally ſpread; and this plan requires the herd to diſturb them perpetually, on purpoſe to keep them together.

together. This bad practice appears to proceed from their paſtures being in common, which makes it neceſſary to herd them in theſe cloſe hirſels, to prevent the ſheep of the various tenants from mixing.

Their other practice of folding their ſheep every night, from ſhearing time till the month of April following, is likewiſe very hurtful. It muſt be very prejudicial to fold ſheep at night, even in the ſummer ſeaſon, but much more ſo in the winter, as they are then expoſed to every kind of weather, without having it in their power to ſeek for ſhelter, which they would do if they were left at their liberty.

Mr Sandilands of Nut-hill, whom I had the pleaſure to meet with on my road from Falkland, and who lives at the foot of the Lomond-hills, informed me, that he had correſponded with Sir John Sinclair on the ſubject of the original breed of ſheep on the Lomonds, which he had reaſon to believe were quite extirpated. I learned likewiſe from this gentleman, that he had procured a ram of the Bakewell breed, which he meant to employ for croſſing the common ſheep of the country, intending to ſtock a farm with this mixture. The Bakewell breed, in my opinion, will not anſwer to croſs the common ſheep in this neighbourhood, as they will make them too fine and tender for the paſture. If they had very good improved land for them, it might anſwer very well; but theſe ſheep cannot ſtand the ſmalleſt ſcarcity of food.

Having learned at Falkland that Mr Baillie of Carphin, about ten miles north-eaſt from Falkland, was improving his breed of ſheep, I went there on purpoſe to examine his ſtock. The land on this road is moſtly in tillage; and the farmers ſeem active in improvement, eſpecially in the turnip huſbandry, and in laying down their land with ſown graſs.

I was ſo unfortunate as not to find Mr Baillie at home, but I examined his ſtock and paſture; and next morning he was ſo good as come after me to Cupar. He informed me, that his ewes were originally of the white faced Fife breed, weighing from ſix to eight pounds a quarter, and that his improved breed now weighs from ten to thirteen pounds each quarter; that he had croſſed them twice in the laſt ten years with half bred Bakewell, or Culley rams, and intended now to give them a croſs of a full bred ram of the ſame kind. This he thinks will be as far as he can go, conſidering his means of keeping them; afterwards, he means to change his rams every three or four years, on purpoſe to prevent his ſtock from degenerating. This croſs with the Bakewell breed may anſwer with Mr Baillie, as his lands are in pretty good order, and he gives his ſheep meat in abundance. He only ſalves his hogs and rams, uſing four pounds of butter to each pint of tar; but is not certain of the number that quantity will ſmear.

His ewes and hogs now produce at the rate of about three pounds each fleece, after being waſhed. Laſt year, his young Culley ram, when a hog only a year old, gave a fleece of ten pounds weight before waſhing, and ſix pounds eight ounces after it was waſhed. It is the general practice in this part of the country to ſhear the ſheep before they are waſhed.

I think this a very bad practice. Waſhing the fleece after it is ſhorn breaks the wool very much; nor do the ſheep ever clip ſo well without waſhing as after that operation, which makes the wool riſe from the back, and allows the ſhears to get in much more readily.

Mr Baillie ſells his wool in ſmall quantities to the neighbourhood, and uſually gets about 18 s. a ſtone. There is an annual market at Ceres in the ſecond week of July, at which the

the price given for wool fixes the rate for all the neighbouring diſtrict. Laſt year, at this market, the beſt wool ſold for 20 s. a ſtone.

Laſt ſpring, Mr Baillie ſold his wedder hogs for 10 s. a head; they were fed during winter, in the neighbourhood, on turnips, and ſold next ſpring, to the butchers of Dundee, for 23 s. each. He ſells his ewes in ſpring, with lambs at their feet, for feeding, at 17 s. each. He generally rears a ſmall number of early lambs, which he kills, and ſells to the tavern keepers in Edinburgh, which practice he finds very profitable.

Mr Baillie always folds his ſheep at night, except during bad weather. I have already given my opinion on this ſubject. His paſture land is a light loam on a whin rock, and is not much expoſed to the weather.

In the pariſh of Creich, in which this gentleman's farm is ſituated, Mr Baillie remembers eight different flocks of ſheep. At preſent there is only his own, which is very ſmall, not exceeding two hundred and fifty. This alteration is owing to the new modes of huſbandry, which has baniſhed the breeding of ſheep from that neighbourhood.

The ſheep markets at Cupar begin on the firſt Tueſday of April, old ſtyle, every year. They formerly continued for ſix ſucceſſive Tueſdays, but of late years only four of theſe meetings are held. The ſame number of ſucceſſive markets are held at Newburgh, on the borders of Perthſhire, on the Fridays of the ſame weeks with thoſe held at Cupar. The price of mutton at Cupar is about 4 d. a pound, and 5 d. when ſcarce; beef from 2½ d. to 4 d.; lamb and veal in proportion.

From Cupar I went to Tent-moor, in the pariſh of Leuchars, where I was informed of a peculiar breed of ſheep. This moor, which is ſuppoſed to contain 3000 acres of land, is

ADVERTISEMENT.

AS it is propoſed to circulate this Report as much as poſſible, in all the Sheep Farming Diſtricts in Scotland, it may not be improper to inform the reader, that among the other experiments under the conſideration of the Society for the Improvement of Britiſh Wool, there are two, connected with the ſubject of this paper, of peculiar importance. The firſt experiment is, to try how far the improved South Border, or Tiviot breed, will anſwer along the eaſtern coaſt of Scotland, and in the interior parts of the Highlands; and even in Diſtricts where the black faced or Linton breed at preſent prevail. It is believed that both the ſize and value of the ſheep, and the quality and quantity of the wool, will be greatly improved by theſe means. Every proper encouragement will be given to thoſe who will try the experiment. In particular, a flock of 50 rams and 150 ewes will be ſent north by the Society, and ſold at the reaſonable rate of 36s. the ram, and 20s. the ewe, free of all expences to ſuch as apply to the Society, and aſpire to the character of being active and intelligent improvers. The ſecond experiment is, to aſcertain how far the South

Border

Border breed can be improved by a croſs with the beſt Spaniſh and Engliſh breeds of ſheep. For making that trial, ten capital Spaniſh and Engliſh rams, at three guineas a piece, and thirty Spaniſh and Engliſh ewes, at two guineas a piece, ſhall be diſpoſed of by the Society to ſkilful ſheep farmers along the Southern Borders of England and Scotland.

Propoſals for that purpoſe may be tranſmitted to Sir John Sinclair, Bart. M. P. the Chairman of the Society. It will be expected that the different purchaſers will attend to ſuch directions as may be given them from time to time by the Society, and will tranſmit full and regular accounts of the progreſs of their reſpective experiments, in order to aſcertain how far the ſame plan ought to be generally recommended to the public.

is of a very ſandy ſoil, and produces very little graſs, but is covered with vaſt quantities of whins or furze, on which the ſheep chiefly ſubſiſt. It is bounded on the eaſt by the ſea, by the Firth of Tay on the north, and by the river Eden on the ſouth. The ſheep on this moor are very ſmall; have moſtly white faces, and long ſmall upright horns like goats. When fat, they weigh from four and a half to ſix pounds a quarter. They have very long wool in proportion to their ſize, and the fleece is very open at the top, but, upon examination, turns out much finer than could be ſuppoſed from their firſt appearance, for they look more like goats than ſheep.

So far as I could learn, the ſame breed has been kept on theſe moors from time immemorial; for no perſon remembers any attempt having been made to change the breed, by croſſing or otherwiſe. The people here have no particular modes of managing their ſheep, any farther than this, that each takes care to keep his own little flock from ſtraying out of his own farm. The whole moor keeps about 2000 head.

The farmers here always ſell ſome of their ewes, with lambs at their feet, in the Cupar market; and for theſe they got, laſt year, from 7 s. to 7 s. 6 d. They ſell their wedders, at the ſame time, when two years old, for about 6 s. a head. The wool is either ſold at home to the country people, or in Ceres market, at from 13 s. to 16 s. a ſtone, which requires about twenty fleeces. The hogs only are ſalved; and both the white and ſmeared wool ſell at the ſame price.

I am of opinion that this breed might be greatly improved by means of a croſs with the true bred ſouth border ram, of a ſmall ſize, but fine wool. This would increaſe the weight of the ſheep, eſpecially in their fore quarter, and would render the fleeces much cloſer at the top. I recommended this practice to Mr Lawſon, who has part of this moor, and he ſeemed convinced of its propriety, and promiſed to make the

 experiment.

experiment. The Tent-moor ſheep are alſo known by the name of the Seuchy Dyke breed; and it is ſaid that the inhabitants in that neighbourhood are of Daniſh extraction, and ſtill preſerve ſome remains of their original cuſtoms and language.

I next examined the ſheep in the reſt of the pariſh, which are exactly of the ſame breed with thoſe deſcribed on Tent-moor, but heavier, becauſe better fed. Within theſe few years, the farmers have begun to croſs with ſome rams purchaſed from Mr Baillie, whom I formerly had occaſion to mention. This practice has already produced great improvement, both in regard to weight of carcaſe and fineneſs of fleece; but I am afraid, if carried much farther, the breed will in a ſhort time become too good for the paſture. The ſoil is a kind of loam on the top of a whin-ſtone rock, and produces heath and whins in great abundance. The hills are not very ſteep, and are naturally well ſheltered.

In general, it takes about ten fleeces of the wool in this pariſh to make a ſtone; which is ſold in the ſame market with the Tent-moor wool, for about 16 s. a ſtone. The hogs are ſold in ſpring for 7 s. or 8 s. and the ewes from 12 s. to 13 s. each. There are about 800 ſheep kept on the hills in this pariſh, though, not many years ago, the number was at leaſt ſix times as great. This diminution is owing to the improvement which, of late years, has been made on the land at the bottom of the hills. Indeed, from the information I have received, it would appear that the quantity of ſheep, in the eaſt of Fife, has diminiſhed at leaſt to a quarter of what was kept there about 15 or 20 years ago. The reaſon aſſigned by the farmers is, that ſheep are conſidered as being very deſtructive to young ſown graſs; and beſides, as, by their improvements in huſbandry, they now raiſe a great deal of turnips, they find it more for their advantage to rear

black

black cattle, which pay them very handſomely at the preſent high prices.

It would be extremely difficult for any perſon to ſay what was the original breed of the ſheep in Fife; as, except thoſe already maintained on Tent-moor, they ſeem a mixture of almoſt every kind that can be thought of. There is no judging of the real value of the wool from the prices I have mentioned, as it is moſtly ſold to the poor people in the country, who are obliged to purchaſe it for making clothes, blankets, and ſtockings; and, beſides that theſe people are no judges of the quality and price, they have no other market at hand where they could be ſupplied. On the whole, I ſhould think that it ſells for at leaſt one third more than it is really worth, at leaſt when compared with the price at which the wool of the ſouthern parts of Scotland is commonly ſold.

Leaving Fife, I now croſſed the ferry at Dundee, intending to proſecute my inquiries along the eaſt coaſt, according to my inſtructions. Mr Baillie, whom I have already had occaſion to mention as an active and intelligent improver, met me at Dundee, and went along with me to Mr Guthrie of Craigie, where we ſaw ſome very good ſheep of the Bakewell breed, which that gentleman keeps for his own uſe. Mr Baillie gave me a letter of introduction to George Dempſter, Eſq; of Dunnichen, whom I met with at Forfar in the evening. Mr Dempſter introduced me to ſeveral gentlemen of the neighbourhood, and they were all of opinion that I ſhould not proceed along the coaſt road to Aberdeen, becauſe there were no ſheep kept in that part of the country, excepting by a few gentlemen for their own family uſe, and even theſe were always purchaſed from Linton. They adviſed me to go acroſs the country by Glen-Eſk, as it was reported that a breed of ſheep were to be found there, producing wool of ſuch fineneſs, as to be manufactured at Aberdeen into ſtock-

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ings worth five guineas a pair. Having conſidered theſe circumſtances, and in particular the high character of Mr Dempſter, the principal of theſe gentlemen who honoured me with this advice, and, as this plan ſeemed more likely to forward the patriotic views of the Society than rigidly following the letter of my inſtructions, I determined to alter my courſe in this particular part of the rout.

Mr Dempſter furniſhed me with a letter for Mr Gillies in Brechin, who was acquainted with ſome people in Glen-Eſk; and Mr Gillies gave me a recommendatory letter to the Rev. Mr Perry, whom he judged the fitteſt perſon of his acquaintance, in thoſe parts, to ſupply me with the neceſſary information. In the mean time, I went a little out of the direct road, in order to viſit Montroſe, and to make ſome inquiries concerning a woolen manufactory ſaid to be carried on at that place.

At Montroſe, I learnt, that, about fifteen years ago, a ſmall woolen manufacture was eſtabliſhed by a company of gentlemen, who carried on buſineſs to the extent of about fifteen hundred pounds a year; but, in the ſpace of about nine years, they gave it over, and the buſineſs has ſince been carried on by Mr Robert Miller, who was formerly manager for the company. This gentleman intends to extend the buſineſs ſomewhat this year; and he ſays he is confident a woolen manufacture would anſwer there extremely well, if carried on by one who had ſufficient capital to afford the ſame credit, to the dealers, that is given by the Engliſh manufacturers.

Mr Miller employs a ſmall ſpinning machine for woolen yarn, which draws twenty-four threads at once, and which, he ſays, anſwers very well. By his books, which he was kind enough to ſhow me, it appears, that, in the year 1788, he manufactured 1922 yards, in 1789, he made 9141 yards, and laſt year, 5806 yards. The firſt of theſe years his manufacture

ture conſiſted entirely of cloth; in the ſecond year, beſides cloth, he made a conſiderable quantity of flannel; and laſt year, moſtly all cloth. He ſells his goods to the dealers in Montroſe, Edinburgh, Glaſgow, and other towns. He makes broad cloths from three and ſixpence, to ſeventeen ſhillings a yard; and narrow cloths, from one ſhilling and tenpence, to ſix ſhillings. His flannels are from one ſhilling, up to one ſhilling and tenpence a yard. He is juſt now about to make trial of the manufacture of Kerſeymare which he is in hopes will turn out to good account.

The wool which he principally employs, comes from the ſouth borders of Scotland, there being very little in the north fit for his purpoſe. He thinks that ſome of the beſt ſpinners of worſted yarn in the kingdom are to be found on the ſide of the river Dee. They ſpin at the rate of from two ſhillings to two ſhillings and ſixpence *per* ſpindle.

A manufactory of worſted hoſiery is likewiſe carried on at Montroſe, but to no great extent. At the weekly market of this place, which holds on Friday, there is ſome wool ſold during the months of June and July; but it is of a kind which does not anſwer the purpoſes of the clothier.

The country, from Brechin to Montroſe, is of an excellent ſoil, and is kept in very good order. The mode of huſbandry is apparently very judicious. The linen manufacture alſo is very flouriſhing; there being, I was informed, at leaſt nine millions of yards of linen made annually in the county of Angus. There is a weekly market held at Brechin every Tueſday; and at Trinity Moor, within a mile of that town, there is an annual fair, which begins on the ſecond Wedneſday of June, and laſts three days. The firſt day is for ſheep, the ſecond for black cattle, and the third for horſes. The buſineſs done at this fair is very conſiderable, extending, as I was told, from twenty to twenty-five thouſand pounds. In the

county

county of Kincardine there are two annual fairs; the firſt in July, called Paddy fair, and the other in Auguſt, called Lawrence fair. Each of theſe continues for four days. The firſt day's ſale is for ſheep, the ſecond for linen and woolen cloth, the third for black cattle, and the fourth for horſes. The linens ſold at theſe fairs are manufactured in the counties of Kincardine and Angus; but the woolens are chiefly brought from two diſtricts in Aberdeenſhire, called Cromar and Braemar. Theſe woolens are of a ſtrong and coarſe fabric, adapted for the uſe of the common people of the country.

I found myſelf very much diſappointed on getting to Glen-Eſk, or Loch-lee, as it is likewiſe called, where I had been made to expect wool of a very great fineneſs. So far from there being any particular breed of ſheep in theſe parts, bearing wool of a very ſuperior quality, I found that the ſheep were moſtly of the Linton or Tweed-dale breed, which are bought in when hogs in the ſpring, or when lambs in the ſummer. The former coſt from nine to ten ſhillings each, and the latter five ſhillings and ſixpence, or ſix ſhillings. Theſe are kept till they are three or four years old, and then ſell for thirteen or fourteen ſhillings a head.

The only other ſheep bred in this glen, are, a mixture between the ſmall native grey faced ewes and Linton rams. This kind is ſold at the ſame age with the ſheep bought in at the Linton markets, and ſell for nine or ten ſhillings a head. Such ewes as are ſold in autumn, do not fetch more than ſix ſhillings a head. This grey faced breed, when unadulterated, might have had fine wool, but ſcarcely the veſtige of it is now to be met with.

The wool of the black faced, or Linton ſheep, is moſtly all ſold white or unlaid, and gives from eight to ten ſhillings a ſtone, which requires eight or ten fleeces. The wool of the mixed grey faced breed, gives a better price, about thirteen

ſhillings;

ſhillings; but then it requires ſixteen or eighteen fleeces to make a ſtone.

The markets for the wool of this diſtrict are Brechin and Montroſe. The ſheep are moſtly ſold to jobbers, who take them to Dundee and Perth markets. The black-faced wedders weigh from nine to eleven pounds a quarter, the others only from ſix to nine pounds. The people in this pariſh are much prejudiced in favour of the black-faced ſheep, as they imagine they are much hardier, and ſtand the winter better than the white-faced kind; but, I am clearly of opinion, that whatever paſture will maintain a black-faced ſheep, will do equally well for a white-faced one; and, it is certainly reaſonable to ſuppoſe, that a ſheep, which has a fine fleece of wool quite cloſe at the top, will ſtand either cold or wet weather better than where the fleece is quite open.

It was the general cuſtom in this glen, until within theſe few years, to houſe all their ſheep at night, in the winter ſeaſon; but this practice is not ſo frequent now, although it is ſtill a good deal followed. They always fetch in their ſheep, from what they call the Glens about the end of October, or the beginning of November, and keep them in till April. The ſheep which they keep in the houſe are fed with ſtraw during the night.

There are about four or five ſcore of goats kept in Glen-Eſk, and, I think, they might keep a great many more to advantage, as their are ſeveral hills, where ſheep cannot feed, being ſo exceedingly craggy. They ſometimes ſell a few of theſe goats, at five years old, for which they get ten ſhillings a-head, as they often have about ten pounds of tallow each. They are much troubled with foxes and eagles in this Glen, which occaſionally do a great deal of injury to the ſtock.

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The ſoil, in general, is a very dry gravel, except at the top of the hills, where there is a very fine moſs. There is very little graſs mixed with the heath, and little or no hay in the pariſh. If they were to ſow what ground they have in tillage with graſs ſeed, it might be of great uſe to them, as it would enable them to let their ſheep lie out upon the Glens all winter; by which means they might keep a great many more, and, in my opinion, of a much better quality. For I do not think the climate ſo cold as they imagine it to be, principally becauſe they cannot grow as much corn as is neceſſary for their conſumption.

The pariſh is of conſiderable extent, being twelve miles long, and four or five broad. The hogs which are reared in this diſtrict are very ſubject to the ſickneſs, which obliges the farmers to buy more than they otherwiſe would do. There are forty-nine tenants in the pariſh. The higheſt rent paid by any one of them, is, L. 29 : 8 : 0 Sterling; and the ſmalleſt L. 2. As the whole rent does not exceed from L. 300 to L. 400 *per annum*, they do not pay, on an average, more than L. 7 for each farm. There are about nine thouſand ſheep kept in the diſtrict. It has alſo a loch in it, about a mile long, and one-ſixth of a mile broad; in which common trout, eel of a very fine quality, and char, are found in conſiderable quantities. This pariſh alſo abounds with all kinds of game; and there are ſeveral veins of lead ore in it, which, in addition to its other advantages, may be found well entitled to the attention of Mr Maule of Panmure, the proprietor.

I had great difficulty to get acroſs the hills from Glen-Eſk to Glen-Muick, on account of ſnow, particularly on a very high mountain, which divides Angus from Aberdeen-ſhire.

The ſheep in Glen-Muick are much the ſame as theſe in Glen-Eſk, being moſtly of the Linton breed, bought in the ſpring and autumn, and ſold, when four year old, to the Dundee,

Dundee, Perth, and Aberdeen butchers for thirteen or fourteen ſhillings a-head. The other ſheep are a croſs between a ſmall breed, which they call the white ſheep, and the Linton or Tweeddale breed. They ſell the wedders, when four years old, at from 9 s. to 11 s. and the ewes are ſold in autumn at from 5 s. to 7 s. each. The wedders here are rather heavier than thoſe in Glen-Eſk, as they have more graſs in ſummer. The Linton kind will weigh from ten to thirteen pounds a quarter, the others only from ſeven to ten. The Linton wool is ſold for about fourteen ſhillings a ſtone, of twenty-eight Engliſh pounds, which takes about twelve or fourteen fleeces. The other ſells at from eighteen to twenty ſhillings; it takes from eighteen to twenty-four fleeces to the ſtone. There are ſome goats kept in this pariſh, though they might keep a great many more on their craggy hills. Theſe animals are very uſeful to the people who reſort to a well in the pariſh called Pannanach Well, which, they ſay, is very good for ſcorbutic diſorders, and alſo for the gravel. It is ſuppoſed, that there are between nine and ten thouſand ſheep kept in the pariſh. The only market for their wool is Aberdeen, where the weight is twenty-eight pounds Engliſh to the ſtone. I recommended to ſome of them to try a ſouth border tup; but they ſeem to think their wool is as good as it can be, although it is undoubtedly of a very inferior quality. I ſcarcely think that they will be brought to improve their wool unleſs the proprietors of the land will interfere, and make a point with them to croſs their ſheep, by which means it might eaſily be effected.

As to the management of the ſheep here, they have none, except fetching them in about October from the high-lands and houſing them every night untill April, when they are put out again. They never ſmear them, although if done moderately it might be of uſe to the young hogs in particular.

The climate is rather cold, but the land is naturally well ſheltered. The ſoil is very dry, and is covered with heath, in a great many places to the waters edge; but where it is not the ground is of a fine dry gravelly ſoil, that would produce good crops, if it were properly managed. The beſt ſheep ground is at a diſtance from the river, being a fine heath mixed with graſs, and natural clover of a very feeding nature. They ſell their wedders to the butchers fit for killing as early as the months of June and July. It is very common there to ſee the ſmall tenants, who, I ſuppoſe, do not pay upon an average above ſeven or eight pounds a year, ploughing upon fine level haughs with three galloways and four or ſix ſmall oxen, and even ſome of them with ten kyloes, in a plough.

From Glen-Muick to Kincardine, the ſheep and ſoil are juſt the ſame with the preceding. From Kincardine to Aberdeen there are very few ſheep kept; and, in general, they are of a mixed breed between the white faced and black faced kinds. Within eight or ten miles of Aberdeen they have begun to improve their ground upon the Dee ſide, but keep hardly any ſheep.

The woolen manufactures in the county of Aberdeen are very conſiderable. The value of the ſtockings manufactured there, is ſaid to amount to between one hundred, and one hundred and twenty thouſand pounds per annum. The whole of the wool of which they are made comes from England, particularly from London, Newcaſtle, Morpeth, and Hexham. It is moſtly ſkin wool, which they prefer to fleece wool. Holland and Germany are the chief markets for their ſtockings.

The cloth buſineſs is but in its infancy at Aberdeen, but is advancing faſt. The wool is got from the ſouth borders of Scotland and the north of England; as they find the wool which grows in the neighbourhood does not anſwer either for cloth

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or worſted ſtuffs. There is only one gentleman that makes uſe of the country wool (Mr Robert Baird) who has erected a machine for manufacturing it, about four miles up the river Don, which I went to ſee. It is the only one in the country, and is upon a very fine conſtruction, as it teazes, cleans, cards, makes the wool fit for ſpinning, fulls, &c. all with one wheel; and the whole buſineſs is done by one man and ſeven children. They make narrow cloth from two to ſix ſhillings a yard, and woolen ſtuffs in proportion for the home market only. It is ſuppoſed that Aberdeen does buſineſs in the clothing branch to the value, of from fifteen to twenty thouſand pounds a year.

There is alſo a very extenſive buſineſs carried on in printed cottons and linen, to the amount of ſixty or ſeventy thouſand pounds a year. A ſmall manufactory of carpets is alſo begun at Aberdeen; but it has not as yet made great progreſs.

From Aberdeen to Ellon there are very few or almoſt no ſheep, and what are kept are of a mixed kind. The greateſt part of the ground is a dry moor, but where it is in tillage it is a fine light ſoil, and capable of great improvement. It is very common here to ſee ten or twelve oxen in one plough, although the land is very light. From Ellon I went to Kinmundy, about ſix miles to the weſt of Peterhead, where there is a manufactory of woolen ſtuffs, carried on by Meſſrs Kilgours; they are moſtly thin ſtuffs, but they likewiſe make a few yard wide cloths, from two to ſix ſhillings a yard. They do buſineſs to the amount of from five to ſix thouſand pounds a year. The whole of the wool which they uſe comes from the ſouth of Scotland or the north of England.

From Kinmundy I went to Peterhead, where there is a manufactory exactly of the ſame ſort with that at Kinmundy; and the wool brought from the ſame places in England and Scotland. They do buſineſs there to the amount of about three

three thouſand pounds a year. The market for the ſale of their goods is at Peterhead and the neighbourhood.

I intended to have gone from Peterhead to Frazerſburgh, but, as there are no woollen manufactories carried on there, I thought it better to ſtrike acroſs the country to Banff, as I would ſee more of the ſheep in that tract than by keeping the coaſt. There are very few ſheep kept from Peterhead to Strichen, except about ſix or ſeven hundred, kept by Mr Fraſer near Strichen, and they are of the black faced kind. From Strichen to Newbyth there are not above from two hundred and fifty, to three hundred kept, of the ſmall kind I have ſo often mentioned; which they ſell when aged for 8 s. a head. They weigh from ſix to ſeven pounds a quarter. The price of the wool cannot be aſcertained, as they uſe it all themſelves. They do not ſalve the ſheep there, but put them into a houſe or fold at night. The ground upon which they go is a fine heath, moſtly upon a lime ſtone, finely intermixed with graſs and moſſy ground, which, at a very ſmall expence, might be made a very fine and extenſive ſheep walk; the only expence neceſſary would be to drain the land and build a few ſtells for ſhelter: But there are ſo many ſmall tenants upon the ground who are fond of keeping black cattle and having a little corn, that it will be a long time before the preſent ſyſtem of huſbandry is altered.

From Newbyth to within five or ſix miles of Banff, the ground and ſheep are much the ſame as thoſe I have laſt mentioned: After that the country is moſtly in tillage. There is a conſiderable ſtocking manufactory at Banff, carried on by Provoſt Robinſon who has a patent for making them in a particular frame. The greateſt part of the wool uſed there is from England. They likewiſe make conſiderable quantities of cotton and ſilk ſtockings. London is the principal market for the ſale of theſe goods.

I went to ſee ſeveral ſmall parcels of ſheep in the neighbourhood of Banff and Portſoy, which are now moſtly of a mixt breed. I was told that they have been croſſed with ſome Engliſh ſheep; and indeed ſome of them have the appearance of the Lincolnſhire kind; but little attention having been paid to the management of theſe ſheep, andhaving been ſince croſſed both with the ſmall country breed and the black faced kind, if they were originally of the true Lincolnſhire breed, as is given out, there is little veſtige left of the parent ſtock. The wool is now neither one kind nor another. There is little of it ſold, or to ſell, not above thirty or forty head of ſheep being kept by each tenant.

Mr James Milne, at the Mill of Boyndie near Banff, has the above mentioned kind, the pureſt of any in that part of the country. He is very fond of improving his breed of ſheep, and deſired me to ſend him a good ram and two ewe lambs of the Bakewell kind, for that purpoſe.

From Portſoy to Elgin the ſheep are of the ſame kind I have ſo often mentioned; but very few are kept at preſent upon this coaſt, owing to the improvement of the land, and the great quantity of trees planted. I ſhould think the Bakewell or Leiceſterſhire breed very fit for the coaſt ſide, where the ground is improved, as probably there always will be a ready market for combing wool, to make worſted ſtuffs and ſtockings, in that neighbourhood. It is hardly to be credited how much the great proprietors on this coaſt, in particular the Duke of Gordon, Lord Fife, and Lord Findlater, might improve the value of their property, by introducing proper breeds of ſheep, calculated either for the hilly, or the cultivated parts of their eſtates.

From Elgin to Nairn the ſheep are all of the ſmall kind, and very few are kept (not above forty ſcore in all) as the land is moſtly in tillage or planted. Several of the ſheep on this

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part of the coaſt, have very little wool, particularly before, probably owing to the poverty of their food. Mr Brodie of Brodie, about half way between Forres and Nairn, has begun to croſs his ſheep with a large tup, but the paſture ſeems better calculated for a ſmall breed.

From Nairn to Fort George the ſheep are ſmall and very few in number. They have nothing to go upon but a very bare moor or links. The wool is ſhort, but of a bad open quality, like the reſt of that breed. From Fortroſe to Cromarty the ſheep are juſt of the ſame kind, and the paſture a bare dry moor. I ſuppoſe there may be about ten ſcore kept upon theſe moors. From Cromarty to Tain they keep principally ſmall horſes for working their land, and what ſheep they have are of the kind already mentioned. From Tain I croſſed over into Sutherland; the ſheep kept upon the eaſt coaſt in that country are very ſmall, and of the ſame kind as thoſe in the ſhires of Roſs and Cromarty. They have the ſame cuſtom there, as they have almoſt univerſally to the north of the Frith of Forth, of houſing the ſheep at night. They ſell their wedders at, from ſix to eight ſhillings, and the ewes and lambs from four to ſix ſhillings a head. It would take a long time for a perſon to aſcertain exactly what number of ſheep is kept on that part of the coaſt, as there are between two and three hundred ſmall tenants who keep, from ten to twenty, and ſome about thirty ſheep each, and only two or three who keep above five ſcore. What wool is ſold there they ſell at twelve ſhillings a ſtone. It takes from eighteen to twenty fleeces to the ſtone. The ſheep there, are often ſubject to the rot, owing, in my opinion, to bad management and poor feeding. Mr Fraſer, factor to the Counteſs of Sutherland informed me, that he is pretty certain a great many, if not the whole of the tenants on that coaſt, would give up in a great meaſure their black cattle, and take to ſheep, provided

vided that they had an example ſhown them. But as they know nothing about ſheep, or the management of them, they do not chuſe to run any riſk. At preſent they clip their ſheep twice a year, in May and October, though their wool is always ſhort.

The ſheep in Caithneſs are in general of the ſame ſort with thoſe in Sutherland, and managed in the ſame manner. There has been no trial made in that county to improve the breed of ſheep, except at Thurſo Caſtle, where there are ſome ſheep brought from England by Sir John Sinclair. Theſe are of the Herefordſhire breed, and have thriven well, and produce good wool. Mr Grant of Lathron-wheel has a few ſheep, which he bred from a tup brought from the north of Ireland, which has made his ſheep heavier than the general run in the country; but as it is now about twenty years ſince he bought him, the breed has a good deal fallen off. The want of markets for fat ſheep diſcourages people in the north from paying that attention to the breed, which otherwiſe they would be diſpoſed to do.

There are very few ſheep kept in this county. The only ſheep farm is at Sandſide, where there are about eight or nine hundred which thrive well, and are ſubject to almoſt no diſorders. They are all of the black faced breed upon that farm; and the wool was ſold laſt year at no leſs a price than 11 s. a ſtone of twenty four pounds Dutch weight. I ſaw almoſt the whole of the county of Caithneſs, and I think there are very few places in it fit for keeping ſheep, the ground being either in tillage or naturally very wet. The moſt likely places beſides Sandſide, are the hills of Yarrows, and the eſtates of Langwell and Lathron-wheel. The two former are the property of Sir John Sinclair of Ulbſter, the latter, of Mr Dunbar of Hemprigs.

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From Caithneſs I went to Mr M'Kay's of Bighouſe in Strathnaver, who keeps ſome hundred head of ſheep of a mixt breed, between the white faced and black faced kinds. Mr M'Kay as yet ſells very few ſheep, intending to increaſe his flock conſiderably, and propoſes to try ſuch experiments as are the moſt likely to improve the quality of his ſheep and of his wool.

From Bighouſe I went to the weſt point of Sutherland as far as Cape-wrath, where the land ſeems to be tolerably well calculated for ſheep, but there are very few kept at preſent, and what they have are either of the ſmall kind or a mixture of theſe with the black faced ones. There are very few ſheep ſold in that neighbourhood, as they kill them moſtly for their own uſe, and very little wool is ſold. What they do ſell brings from 10 s. to 12 s. a ſtone, of twenty two pounds Dutch weight.

From Durneſs I croſſed over, by the head of Lochnaver, to Colonel Baillie's of Roſe-Hall, who has let a large ſheep farm which ſeems to anſwer very well; and juſt adjoining to his farm, there are one or two of Sir Charles Roſs's, where the ſheep are alſo thriving. In the pariſh of Creich, there are now about four or five thouſand ſheep kept, and there is ground already taken that will keep three or four thouſand more. They ſell their wool from 6 s. to 7 s. a ſtone being all of the coarſe black faced kind, and very heavily ſalved.

The whole of that part of the country ſeems very well calculated for ſheep, having plenty of heath, moſs, and ling with a mixture of fine graſs; but notwithſtanding theſe advantages, it has in general a great want of hay. Sheep, however, are hardly ever known to want hay in that neighbourhood, as the ſnow ſeldom lies long on the ground. Colonel Baillie informed me of a kind of ſheep at Brighthelmſtone in Suſſex that have black faces and legs, but at the

the ſame time have very fine wool, and are extremely hardy; and although it may be imagined that theſe ſheep are better fed than thoſe in the Highlands, yet he is perſuaded that is not the caſe. They get, it is true, a little rape in the ſpring, but the paſtures in the north are ſuperior, owing to the variety of heath, ling, moſs, &c. not a particle of theſe being to be found upon the Brighthelmſtone hills; and although the hills appear very green and beautiful, yet, from the great quantity of ſtock kept upon them, the ſheep are always lean in the ſpring. The mutton of theſe ſheep is extremely delicate, and the carcaſe weighs well. The lambs ſell for 13 s. or 14 s. and the caſt ewes from 12 s. to 16 s. Particular information may be obtained concerning the quality of theſe ſheep by applying to Thomas Kemp, Eſq; M. P. at Lewes in Suſſex, or to his brother Nathaniel Kemp, Eſq; Brighthelmſtone, whoſe ſtock is ſuppoſed to be among the beſt of that breed. There is likewiſe a kind of brocked faced ſheep about Brighthelmſtone which are not thought to be ſo hardy as the black faced polled kind.

In Caithneſs and Sutherland there are a good many goats, and a great many more might be kept to great advantage, as they are very well calculated for thoſe diſtricts.

From Inverneſs to Aviemore the ground is very high, and almoſt entirely covered with heath. The ſheep are very ſmall, of the ſame kind with theſe I have ſo often mentioned. Some of them have a croſs of the black faced kind, which has added a little to their weight. They have lately got dealers from Yorkſhire, who come and purchaſe their wool. Strathſpey, on the whole, and particularly Sir James Grant's eſtates, ſeem to be well adapted for ſheep farming.

From Aviemore to Pitmain the ſheep and ground are much the ſame as between Inverneſs and Aviemore. There is a place

near Pitmain, called Glen Fiſhey, where there were once very fine wooled ſheep, but they are now quite adulterated, owing to the croſſing with the black faced kind. A few years ago, a gentleman from London applied to Mr M'Lean of Cluny, near Pitmain, to ſee if he could procure him a few of the old breed, but none could be found. The wedders in general ſell for from 13 s. to 16 s. and the ewes from 7 s. to 9 s. the markets are chiefly Glaſgow and Perth. The ſmall kind of ſheep ſell from 7 s. to 9 s. and the ewes from 4 s. to 6 s. a head. The white wool unwaſhed ſells for 10 s. a ſtone, and the laid for 5 s.

The whole of the ground from Pitmain to a few miles below Blair in Athol, is much of the ſame quality, and the ſheep and wool likewiſe, excepting a large flock belonging to the Duke of Athol, which are improved by a croſs, ſome years ago, with a Culley tup.

The wool of theſe ſheep laſt year ſold at Aberdeen for about 12 s. and 12 s. 6 d. a ſtone.

The wool and ſheep of the other farms in this part of the country are principally of the black faced ſort. The wool went moſtly to Yorkſhire laſt year. I was informed by a perſon from the neighbourhood of Hawick, who has a farm between Dalwhinnie and Dalnacardoch, (which is capable of keeping between three and four thouſand ſheep), that the whole of that country will feed more ſtock than a ſtranger would imagine by looking at it; and it was aſſerted by people who have lived in that country for thirty or forty years, that they never remember any conſiderable quantity of ſnow lying above ſix or eight weeks at the utmoſt, and that they would imagine their ſheep were in danger of being loſt, if they were obliged to give them hay. But it is neceſſary to to take notice, that they have always the low part of their ground preſerved unpaſtured during the ſummer, to which

they

they bring the ſheep down from the hills in the autumn, and there they remain untill the end of April or the beginning of May.

From all that I have ſeen in the north, and from my long knowledge both of the quality of the ſoil and paſture, the climate, and the nature of the ſheep in the hills of Tiviotdale and Northumberland, I am convinced that there is no part of the Highlands where ſheep can be kept at all; the true bred white faced ſheep would anſwer as well as either the ſmall bodied, or the coarſe wooled kinds, which are at preſent kept in thoſe parts. The difference of profit between theſe ſorts is greatly in favour of the ſouth country white faced ſheep. Their wool is worth 20 s. a ſtone when white, which, on an average, requires only nine fleeces; and when ſalved ſells from 15 s. 6 d. to 16 s. which requires ſeven and a half fleeces to the ſtone of twenty-four Engliſh pounds; while ſome of the other kinds take from twenty to twenty-four fleeces to the ſtone, which only ſells for 15 s. The carcaſe alſo of the white faced ſheep is greatly ſuperior in weight, particularly in the fore quarter, which is a great object to the butcher. This valuable breed, ſo far as I know, or ever could learn, is only to be found on the range of hills which divide Scotland from England; and have been kept there from time immemorial without any change, except what has proceeded from conſtant attention to good croſſes among themſelves, by chuſing the beſt rams, and the beſt breeding ewes with regard both to carcaſe and fineneſs of wool. But it would be needleſs for any perſon to lay out money either in buying or in breeding ſheep of a good kind, from theſe parts, without having ſhepherds to take the charge of them, as the people in the north are in general extremely ignorant in this important branch of huſbandry.

From

From Perth to the Queensferry there are very few ſheep kept, except upon the Ochil hills, and theſe are moſtly of the brooked faced kind, which ſell at from 12 s. to 14 s 6 d. a-head. The wool of the brooked faced ſheep is very little better than that of the black faced. The butchers however prefer the black faced ſheep to the other, as they imagine they are in general more eaſily fattened, and becauſe their fore-quarters are conſiderably heavier.

I have now given a faithful account of every thing relative to the ſheep of the north, which occurred to me, and ſeemed worthy of notice, in the courſe of a journey of about 890 miles, which I took purpoſely to make inquiries on the ſubject. It has been my earneſt wiſh to forward the patriotic views of the Society as much as lay in my power; and I ſhall feel myſelf much gratified, if my humble endeavours ſhall merit any ſhare of its honourable approbation. At the ſame time, I muſt beg that my inexperience in writing may be conſidered as an apology for the many errors in this report; and I ſhall be happy to have it in my power, to ſatisfy any farther inquires that may be thought neceſſary. The ſhort time allotted for my journey, through a vaſt tract of bad roads, and at an unfavourable ſeaſon of the year, has likewiſe obliged me to be leſs minute in my inquiries than I could have wiſhed. But, during the whole time ſpent on this expedition, I have never for a moment loſt ſight of the objects of inquiry which were pointed out to me, nor neglected any opportunity that occurred of procuring information.

The reſult of the whole ſurvey is, that no time ſhould be loſt in changing as rapidly and completely as poſſible, not only in the northern Highlands, but alſo in every part in Scotland, where ſheep farming ought to prevail, the black faced, and brooked faced breeds of ſheep, for the real white faced Tiviotdale, or South border breed.

The

The white faced ſheep are equally hardy with the black faced. I do not make this aſſertion merely as matter of opinion; for about three years ago, a fair trial was made between theſe two kinds of ſheep on the Lammermoor hills, at Byre Cleugh, 7 miles eaſt of Norton; and, notwithſtanding that the black faced ſheep were bred upon the farm, and the white faced ſheep were brought from a great diſtance, and had to be perpetually herded to keep them on the ground, (which is a great injury to ſheep by diſturbing them, and preventing them from feeding), they proved better than the blacked faced ones in the courſe of a year. Laſt year I ſold ſome of the ſame kind of white faced ſheep, which were only wintered on the Lammermoor hills, when hogs, for 11 s. a-head.

This important circumſtance of the equal hardineſs of the white faced breed, being aſcertained, there cannot remain a doubt of their ſuperiority in all other reſpects. Their fore-quarters are conſiderably heavier, in proportion to the reſt of the carcaſe, than thoſe of the black or brooked faced ſheep; and indeed the whole carcaſe is heavier, ſo that the ſtock, which can be ſold off annually, is ſure to bring a larger price. Their wool, too, is greatly finer, and will ſell at a much higher price *per* ſtone. Beſides, each fleece of the white faced kind is a good deal heavier, and conſequently it keeps the animal warmer than either of the other kinds. I am convinced alſo, from all that I know, or can learn, on the ſubject, that the white faced ſheep neither require a better paſture, nor more of it.

I ſhould think it very poſſible to change the breed of ſmall white faced ſheep, that are kept on the eaſt coaſt, and other parts of Scotland, by croſſing with real true bred border tups, in about four or five years; and the black faced Linton kind itſelf, might be changed in about eight or nine years, by the ſame means.

I cannot place theſe circumſtances in a clearer light, than by the following compariſon of the produce of three equal farms, of the different kinds, ſuppoſing them to be managed exactly in the ſame way.

A farm containing fifty ſcore of ewes, and other ſheep in proportion, of the white faced kind, may ſell off annually as under.

1500	fleeces, white wool,	at 2 s. 3 d. *per* fleece,	L.	168 15 0
1040	ditto, laid ditto,	at 2 s. each,		104 0 0
300	draft ewes,	at 15 s. each,		225 0 0
500	wedders,	at 20 s. each,		500 0 0
			L.	997 15 0

One conſiſting of the ſame quantity of black faced ſheep, will produce by the ſame mode of ſales,

2540	fleeces, laid wool,	at 10 d. *per* fleece,	L.	105 18 4
300	draft ewes,	at 11 s. each,		165 0 0
500	wedders,	at 15 s. each,		375 0 0
			L.	645 18 4

And one with the north country brooked faced ſheep, as follows :

2500	fleeces, wool,	at 10 d. *per* fleece,	L.	105 18 4
300	draft ewes,	at 9 s. each,		135 0 0
500	wedders,	at 14 s. each,		350 0 0
			L.	590 18 4

Thus

Thus there is a difference of L. 351; 16: 8 of annual produce, in favour of the white faced ſheep, above what can be produced by the ſame quantity of ſtock of the Linton breed; and a difference of L. 406: 16: 8 in favour of the white faced over the brooked faced kind of ſheep.

I have already mentioned that theſe true bred white faced ſheep, are only to be got on the borders of Scotland and England, namely, in the pariſhes of Hounam, Oxnam, Morbattle, and Jedburgh in the county of Roxburgh, and in the upper parts of the Coquet and Reid Waters in Northumberland.

As no doubt can be entertained of the propriety of extending the beſt breeds of ſheep through the different parts of Scotland, which are capable of ſupporting that very uſeful, and even neceſſary animal; and as I have already given my opinion of the particular kind which ſeems beſt calculated for breeding in the north, it may perhaps be expected, that I ſhould point out ſuch methods as are, in my opinion, beſt calculated for that deſirable purpoſe. There are, no doubt, many gentlemen in the Society better able to draw up ſchemes for this end than I am, eſpecially with the facts which I have furniſhed relative to the breed, paſture, and climate of the diſtrict through which I have gone in my ſurvey; but the following hints may be of ſome ſervice in the formation of ſuch a plan.

There are two ways by which this end may poſſibly be accompliſhed; 1. by furniſhing the breeders of ſheep in the north with proper rams, at the expence of the Society, and under the inſpection of proper perſons appointed at the neceſſary ſtations for that purpoſe; or, 2. by encouraging the breeders to furniſh themſelves with rams of the beſt kind, to be pointed out by the Society, giving premiums according to circumſtances. I ſhall take notice of both of theſe modes, and point out, ſo far as I am able, the advantages and diſadvantages attending both.

In

In the firſt place, the Society might purchaſe rams of the kind thought moſt proper for improving the breed of ſheep in the north; and let them out to hire to different breeders in certain diſtricts, under the inſpection of proper people choſen in the ſeveral diſtricts for that purpoſe, and under ſuch regulations as might be thought conducive to the ends of the Society. By this plan, it would be requiſite to know pretty nearly the number of ewes before hand in each diſtrict, that a competent number of rams, for the intended number of ewes, might be previouſly provided. As this neceſſary preliminary is almoſt impoſſible to be aſcertained; the conſequence would be, that, in ſome diſtricts, a greater number of rams would be provided by the Society than was neceſſary, and a conſequent heavy and unneceſſary charge incurred, without any equivalent advantage. In other diſtricts, on the contrary, the number of rams might greatly fall ſhort of what was wanted for the purpoſes of the ſurrounding farms; by this means many would be diſappointed, and their zeal for improvement, checked in its riſe, might not eaſily be recovered.

Another inconvenience which would unavoidably attend this plan is, that the perſons to whom the rams in the diſtrict were intruſted, would naturally prefer their own ewes, if they have any, to thoſe of their neighbours, and would be apt to ſhow favour, as friendſhip or intereſt might prompt them. This too would occaſion diſappointments, jealouſies, and even oppoſition to the views of the Society, in thoſe who found the ewes of others preferred to their own.

Another ſtrong objection to this plan is, that it will be attended with a certain, though a ſmall expence, to thoſe farmers who employed the Society's rams with, in their opinion, at the beſt, only a very uncertain proſpect of advantage; and is contrary to all the prejudices they entertain

tain reſpecting the kinds of ſheep beſt adapted for their own hills.

The perſons alſo, who might be intruſted by the Society with the care of theſe rams, would expect to be paid for their keeping, and for the trouble which they might have in ſuperintending the execution of the plan.

On theſe grounds, therefore, I ſhould be inclined to prefer endeavouring to rouſe the ſpirit of improvement by premiums. If however, the Society ſhould think otherwiſe, I ſhould beg leave to mention the following ſtations as the moſt centrical and beſt calculated for placing tups, in thoſe diſtricts, through which I have gone in my late northern ſurvey.

1. About the Lomond hills; for though at preſent the farmers there do not breed any ſheep, yet they might be induced to turn their attention that way, if the advantages to be derived from this practice were properly pointed out to them.

2. In the north part of Fife, from which, I have formerly ſaid, the farmers about the Lomonds, are chiefly ſupplied with young ſheep for grazing on their farms.

3. About the Tent moors, or pariſh of Leuchars on the eaſt coaſt of Fife.

4. In Glen-Eſk, in the county of Forfar.

5. On the banks of the Dee between Abergeldie and Aberdeen.

6. Between Strichen and Banff.

7. In ſome of the diſtricts in the ſhires of Banff, Elgin, and Nairn.

8. In Cromarty ſhire.

9. In the diſtricts of Roſs ſhire, near Tain.

10. In the eaſt coaſt of Sutherland.

11. In the ſouthern parts of Caithneſs.

12. In the neighbourhood of Thurſo.

13. At Tongue in Sutherland.
14. About Cape-Wrath.
15. Near Lochnaver.
16. About Inverneſs.
17. Near Aviemore.
18. Near Dalwhinnie.
19. In Athol.
20. Among the Ochil hills.

Theſe are ſome of the principal places where ſuch a plan would require that proper brood rams ſhould be ſtationed, though there are doubtleſs a great number of other places in the ſame tract of country, which my limited time did not permit me to viſit; and a vaſt variety of others in all the other diſtricts of Scotland, where the ſame would be equally neceſſary.

The other plan of promoting the improvement of the breed by giving premiums to the farmers for procuring, employing, and hiring out proper rams would, in my opinion, be very eligible. In this way the expence to the Society might be more nearly aſcertained, and impoſitions of various kinds more readily guarded againſt by proper regulations. The certain gain, which would occur to the farmer from the premiums, would be a much more effectual excitement to improvement, than the eventual and contingent profit, held forth to them in the former way; and thus their old prejudices might be removed by the force of ſelf intereſt.

Should this way of proceeding be adopted by the Society, I would beg leave to ſuggeſt, that, in certain diſtricts, choſen as much ſcattered as poſſible, and as numerous as the funds will admit of, annual premiums be offered to the farmer, in each of theſe diſtricts, who ſhall provide himſelf with the greateſt number of rams of the proper kind and age; and a leſſer premium to the farmer who has the next greateſt

eſt number. Each competitor to produce certificates from the perſon from whom he purchaſed his rams, of their age, when bought; of the number of ewes on his farm; of the rams being ſtill in their poſſeſſion, &c.

Were ſuch premiums to be continued for a conſiderable number of years ſucceſſively, there can hardly be a doubt, that they would quickly ſpread the improved breed all over the country.

Another ſet of premiums might be offered, after three or four years, to the farmers, in each of theſe diſtricts, who ſhall produce the greateſt number of brood ewes of the croſſed breed, and of the beſt quality as to wool and carcaſe.

To promote the improvement of the breed of ſheep, and render it more and more the intereſt of the farmers to attend to the increaſe of his ſtock, it would likewiſe be extremely neceſſary to inſtitute fairs for wool and ſheep in various parts of the country, and at different times of the year. Theſe are much needed in the north, as, excepting the precarious ſale to the butchers in the ſmall towns, there is no market of any conſequence for ſheep to the north of the Tay, except at Trinity moor, in the county of Angus, and two annual fairs in the county of Kincardine. Beſides, the butchers are not the beſt purchaſers for breeders, as, in general, on ground fitted for breeding ſheep, it is impoſſible to make them fat enough for the butcher. The buſineſs of fattening belongs to an intermediate farmer on more cultivated land; who, by means of ſown graſs or turnips, or both, has it in his power to fatten ſheep quickly, and conſequently to produce a quick return for his outlay. Farmers, in general, are rather needy from the preſſure of their regular payments for rent. There are very few inſtances in Scotland of a farmer confining his views to ſuch a quantity of land as he is fully able to ſtock, and having a ſufficiency to wait for eventual profit at a diſ-

tance.

tance of time. Every means therefore which brings a ready ſale, and a quick return for their goods, muſt be of the moſt eſſential ſervice to his intereſt.

In the countries, through which I have travelled, during my ſurvey, perhaps the following places are beſt adapted for fairs to ſerve the intereſt of ſheep breeding, beginning with the north, viz. Tongue, Thurſo, Wick, Langwell, Dornoch, Tain, Dingwall, Beauly, Inverneſs, Aviemore, Dalwhinnie, Blair in Athol, Dunkeld, Perth, Kinroſs, Falkland, Leuchars, Forfar, Brechine, Abergeldie, Inverurie, Keith, Elgin, Forres, and Newton in Murray. At theſe places, or ſome of them, according to circumſtances, there ought to be fairs for ſheep, and wool, eſtabliſhed at the different ſeaſons of the year, when theſe commodities are uſually brought to market from the breeding country. The wool in the end of July; for lambs in the beginning of the ſame month; and, for aged ſheep, in the end of Auguſt or beginning of September. And they ſhould be ſo contrived as to ſucceed each other regularly, ſo that either buyer or ſeller beginning at the North may try his market on his way home to the South. Gentlemen ought to be ſettled with, who will undertake to give the market ground free from duty on ſheep or wool, and ſatisfy themſelves with ſuch dues as may be had from other commodities. It would not be amiſs likewiſe to eſtabliſh, in the ſame places, an annual market for butter and cheeſe; for, as theſe are produced in ſheep farms, every means ought to be employed to facilitate the ſale of the articles produced by a new ſpecies of farming, or at leaſt one which at preſent languiſhes, and deſerves to be nouriſhed by every poſſible means.

It would likewiſe be of no ſmall moment to the breeders of ſheep, that means were fallen on to extirpate the race of foxes, eagles, and carrion crows or corbies, all of which are exceedingly hurtful to a breeding ſtock, and abound very much

much in many parts of the Highlands. The wiſe policy of our more ignorant anceſtors has moſt happily ſucceeded in totally deſtroying the race of wolves in our Iſland; and there is certainly very little difficulty in the attempt to extirpate the fox, for which ſimilar means might be taken.

I have heard that, ſome years ago, a fox-hunting gentleman, finding a ſcarcity of ſport, offered a reward of a guinea for every fox, and half a guinea for every cub, brought alive to his covers. A countryman diſcovered a ſecret compoſition which he laid in the entry to the fox holes, and which they greedily devoured: Its effects were to throw them into a ſtupor, by which means he caught them moſt readily, and carried them to the place where his reward was promiſed. I think this ſecret might eaſily be got, and being publiſhed with the offer of proper rewards, in a ſhort time the northern Highlands might be got rid of an animal ſo noxious to lambs. Eagles and corbies might perhaps be caught by baits of a ſimilar kind, at leaſt the experiment is worth trying; and it can ſcarcely be doubted that proper premiums for producing the heads of theſe deſtructive birds would ſoon diminiſh their number moſt completely.

The only thing which now occurs to me, on the ſubject with which the Honourable Society has intruſted me, is, that, in my compariſon of the different value of the various breeds of ſheep, I have omitted to ſtate the ſmall white faced breed of the north. A farm of the ſame number of that breed with theſe I have formerly mentioned, when treating of the other kinds, will produce annually as follows:

2540	fleeces of wool,	at 9 d.	L.	95	5 0
300	draft ewes,	at 4 s.		60	0 0
500	wedders,	at 7 s.		175	0 0
		Total	L.	330	5 0

There

Thence it appears, that the various breeds of ſheep which I have met with in Scotland, and which are fitted for hill paſture, would produce in the follow proportions.

The Tiviotdale breed,	- -	L.	997 15 0
The Linton breed,	- - -		645 18 4
The brooked faced breed,	- -		590 18 4
The white faced breed of the north,	-		330 5 0

or nearly in the proportion to each other of 10, $6\frac{1}{2}$, 6, and $3\frac{1}{3}$; ſo that, if my ſtatement be right, there cannot be the ſmalleſt queſtion as to the ſuperiority of the Tiviotdale breed, which exceeds the very beſt of the others more than 35 *per cent.* in annual produce, and the worſt by 65 *per cent.*

I cannot conclude without expreſſing my ſincere wiſh, that the Society for the improvement of Britiſh wool, may meet with every poſſible ſucceſs in the proſecution of the patriotic objects of its inſtitution; which, indeed, the enlarged views of its members, together with the great advantages, both public and private, which muſt neceſſarily flow from their exertions, can ſcarcely fail to obtain.

APPEN-

APPENDIX.

Abſtract of an Account of Shetland Sheep, drawn up by John Tulloch, a Native of Shetland.

THIS paper contains a variety of diſquiſitions, which prove that the writer has been at very great pains to acquire proper information on this important ſubject: For them the paper itſelf muſt be conſulted. The following ſeem to be the moſt important facts concerning the Shetland ſheep, not yet ſo well known to the public, that he has been able to aſcertain.

It is impoſſible, he ſays, to learn whence the original breed came, or how long they have been in theſe iſlands; but that original breed is a ſmall neat ſheep, with a ſhort tail, and carries wool of uncommon ſoftneſs and fineneſs. The breed is now however greatly mixed, having been debaſed by ſeveral importations of ſheep, firſt from Scotland, and then from England, which have greatly injured the wool, rendering it much harder and coarſer than it originally was. This evil is increaſed by the little care that is taken of the ſheep, and by neglecting to keep rams of the fineſt kind, ſo that at preſent they look to the ewes only for the keeping up the fine wooled ſort.

In conſequence of this ſpecies of miſmanagement, the number of fine wooled ſheep, or, as they call them, *kindly* ſheep, is much decreaſed, ſo that it is ſuppoſed there are not at preſent, in the whole iſlands of Shetland, above one thouſand ſheep of that breed; and even of thoſe that are called *kindly*, a very ſmall proportion are of the very fineſt ſort.

Of

Of the ſheep that carry fine wool, there are two diſtinct ſorts obſervable; one ſort that yields ſhort cloſe wool, fit for being carded; another ſort that affords longer wool, that would be more proper for being combed. The pile of the ſhort wooled ſort is cloſe, and very much curled, or rather waved in the locks, like flax that has been creſſed between the hands, the hairs being all parallel to each other, though much bent, waving thus ≈. This wool has a clear gliſtering appearance in the fleece, as if it had been varniſhed. The long wool is often as ſoft as the other, though it ſeldom is quite ſo fine. It does not pack naturally ſo cloſe, but is more open in the locks, and ſtreighter in the pile. By the intermixture of breeds, you get all the varieties between theſe two ſorts.

The colours are various—white, fawn-colour, dun, grey, black, and ſpotted. The colours moſt eſteemed are the white and the ſilver grey, which laſt is often very beautiful, and of a great variety of ſhades, ſometimes being nearly all black hairs, and ſometimes almoſt entirely white. Even thoſe ſheep which may be reckoned white, from the promiſcuouſneſs of breeds, have very often a few black hairs through the fleeces. It is obſerved that a grey ſheep, like a grey horſe, becomes more and more white as it advances in age. The greyneſs proceeds from a mixture of black hairs with thoſe of another colour. When the other mixture is a pure white, there is a beautiful ſilver grey, exceeding pleaſing to look at; when the mixture is a dun with the black, it is very ugly, though ſome of this kind of wool is very fine and ſoft.

It is obſerved in all theſe iſles, that the kindly ſheep are the moſt hardy, the moſt ſagacious, and the beſt for breeding; and that though the intermixture of breeds has debaſed the Shetland wool, it is ſtill more improved than that which has been imported. In a few generations, however, the diſtinctive quality of the foreign breed, ſeems to be ſoftened down

down in ſome meaſure to that of the native, though the wool is never ſo fine as the pure breed. The effects of theſe importations might have been in ſome meaſure loſt, had not ewes been introduced along with the rams, and the biggeſt and coarſeſt wooled lambs been preferred for rams to breed from. The lambs of the pureſt fine wooled breed have always a ſort of reddiſh tinge at the bottom of their fleece. This breed is alſo gentle in its manners, and diſcovers great ſagacity in picking out proper food for itſelf. Its ſkin is likewiſe found to be cloſer and ſofter than that of the other ſheep, and is therefore univerſally made choice of in preference to all others, for aprons to maſons and other artiſans *. It feeds well, and its mutton is tender, juicy, and uncommonly ſweat to eat.

In this country ewes are ſometimes kept to a very great age, and it is in general believed that the wool continues to increaſe in length and ſtrength as the ſheep advances in age, till it becomes five or ſix years old, when it uſually loſes mark of mouth, after which time the wool grows rather thinner. But theſe are only vague opinions that have not been aſcertained by experiment.

The places where the greateſt number of fine wooled ſheep at preſent are to be found are the pariſhes of South Delting, Aithſting, Lunnaſting, Neſting, and Lower Wieſdale.

In the management of ſheep, the inhabitants of Shetland are ſhamefully deficient. They are turned out to the hills, and left to ſhift for themſelves, in the beſt way they can, from one end of the year to the other; and, unleſs it be three

* This fact is of more importance than at firſt ſight could be imagined; for it is probable that the ſkins of Shetland ſheep will make Morocco leather, which will make them extremely valuable.

or four times in the year that they are taken into pens, called there *punds*, to be examined and marked, they are never looked after by any perſon. They are never ſhorn; but the wool is plucked off as it looſens from the ſkin; or, rather, it is picked up from the heath, in detached locks, after it has ſeparated of itſelf. Hence, it is impoſſible to obtain a ſingle fleece of one kind of wool, or to ſort it properly; as, in a bundle of a pound weight, you may have locks from perhaps a hundred different ſheep. No uſe of this wool can of courſe be made in extenſive and fine manufactures, as a few coarſe hairs from foreign admixture is to be generally found among the very fineſt of it.

Some of the ſheep, chiefly among the long wooled ſort, have a ſtiff kind of hair that grows among the roots of the wool. This does not looſen from the ſkin at the ſame time with the wool, but continues till a later ſeaſon of the year. To get free of this kind of hair is one reaſon for their avoiding to ſhear their ſheep. The pureſt breed, however, eſpecially of the ſhort wooled ſort, have ſeldom any of this hair on the ſkin. It is in general ſuppoſed, in Shetland, that this kind of ſtiff hair not only is later in looſening from the ſkin than wool, but is later in beginning to grow alſo, as it ſeldom is obſerved among the wool till toward the month of February. Should this fact prove true, economical uſes might be made of it.

Much occurs in this Eſſay reſpecting diſeaſes of ſheep, and many hints reſpecting management; which, being only conjectural, and founded on the obſervations of a ſet of men who ſeem to have beſtowed little attention to this very valuable animal, are not to be reckoned of great authority. They deſerve to be attended to by the members of the Society, as they diſcover that the writer has been at uncommon pains to acquire every kind of information that was acceſſible to him.

The

The following inferences ſeem to be fairly deducible from theſe facts:

1ſt, That a peculiar breed of ſheep, poſſeſſing qualities of the moſt valuable ſort, actually ſubſiſts in the Shetland iſles at preſent.

2d, That that breed is of a hardy nature, and eaſily reared, and never would have been in danger of being loſt, even from neglect alone, had not artificial means been employed to debaſe it.

3d, That the inhabitants are at this day active in trying to debaſe it, by ſelecting for rams only the very worſt of the breed they have; and although, in conſequence of the hardineſs of the original breed, they have not been able to effect an entire extirpation of it, they have already ſucceeded in greatly debaſing it, and reducing the number.—The natives are ſo fond of the fine wool, that they are very loath to loſe any of it; and, as they find that rams are apt to ſtray from the flock during the rutting ſeaſon, ſo as to be often entirely loſt, they take care to *cut* every ram lamb that carries a fine fleece; for, as wedders never wander, they are ſure of thus keeping the *fleece*. In this manner, they debaſe the quality of their wool *in general*, for the ſake of preſerving a particular fleece; and realiſe the fable of the gooſe with the golden eggs.—This fact the writer of this Abſtract had from the beſt authority.

4th, That, therefore, nothing more ſeems to be wanting to recover the fine breed, but to ſelect the beſt ewes and the beſt rams that remain, and keep them apart, for breeding from.

5th, That, before any *proper* or extenſive uſe can be made of this wool in manufactures, which alone can make it a profitable article to the rearer, the practice of ſhearing the ſheep muſt be introduced among them.

6th,

6th, That a premium be given to the perſon who ſhall preſent a certain number of ſhorn fleeces at a certain time, neatly done up, as is uſual in wool countries. And,

Laſtly, Since Mr Tulloch has been at ſuch uncommon pains to obtain information reſpecting this important article, that he receive ſome acknowledgment for his trouble and attention.

FINIS.